

US EPA ARCHIVE DOCUMENT



Panel: Status of Waste to Energy in California

Biomass Utilization From Sustainable Forest Management

**Tom Christofk, Air Pollution Control Officer
Placer County Air Pollution Control District**

**2014 California Bioresources Alliance Symposium
UC Davis**

June 3, 2014



Targeted Fuels Treatment in California

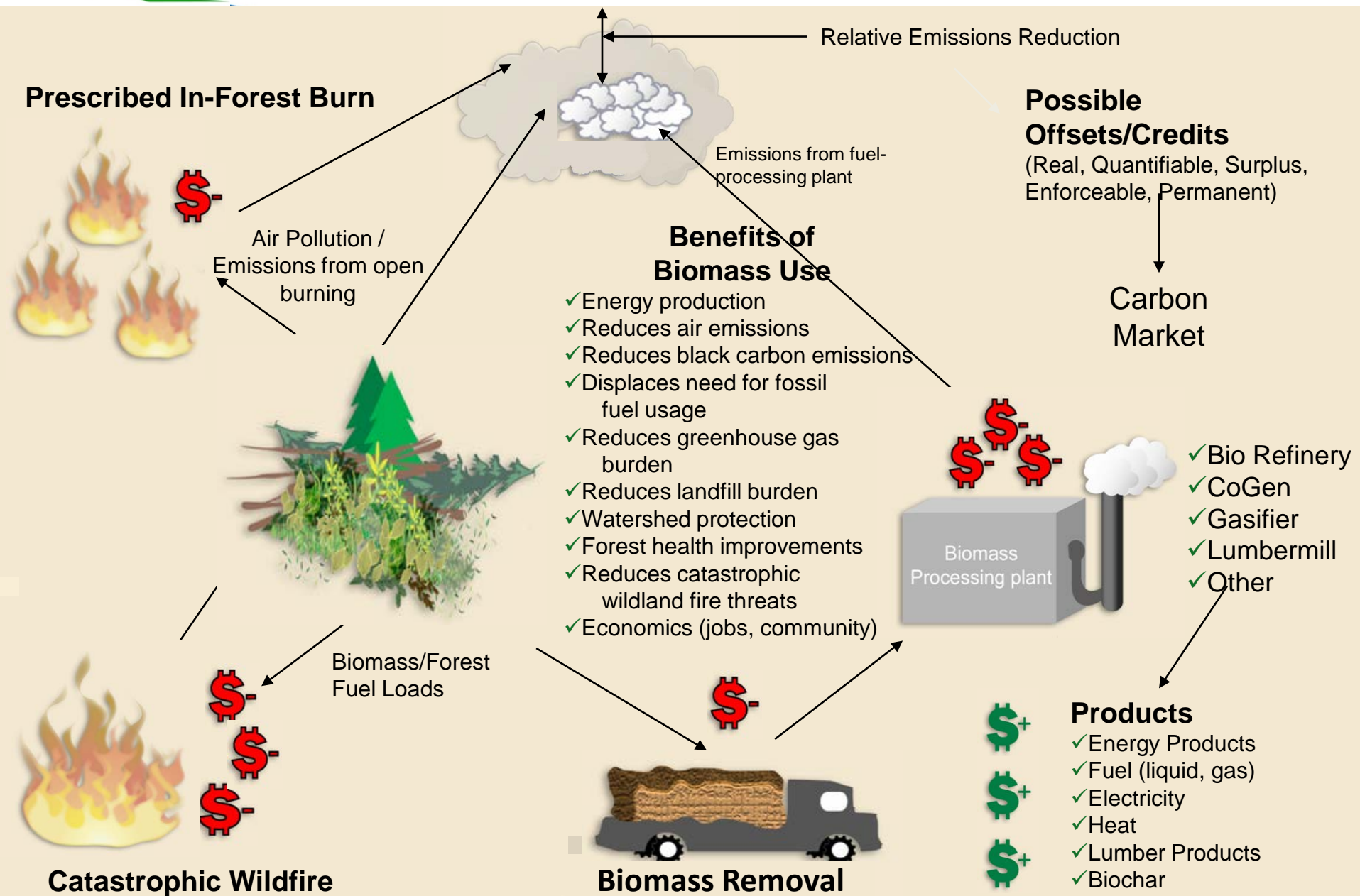
CA Forest Ownership	High Fire Danger (acres)	Current Treatment (acres/yr)	Targeted for Treatment (acres/year)	Biomass Produced from Targeted Treatment (green tons/yr)	Potential Electricity Production from Biomass from Targeted Treatment (MW)
US Forest Service	8,985,800	60,000	200,000 – 500,000	4,800,000 – 12,000,000	240 - 600
Other Public	1,768,300	25,000	50,000 – 80,000	1,200,000 – 1,920,000	60 - 96
Private	7,244,400	40,000	175,000 – 300,000	4,200,000 – 7,200,000	210 - 360
Totals	17,998,500	125,000 *	425,000 – 880,000	10,200,000 – 21,120,000	510 – 1,100

Source: USFS, Calif. Forest Assoc.

* Current Treatment produces 3,000,000 green tons/yr, 50% currently used for fuel (90 MW)



Biomass Emission / Economic Process Model

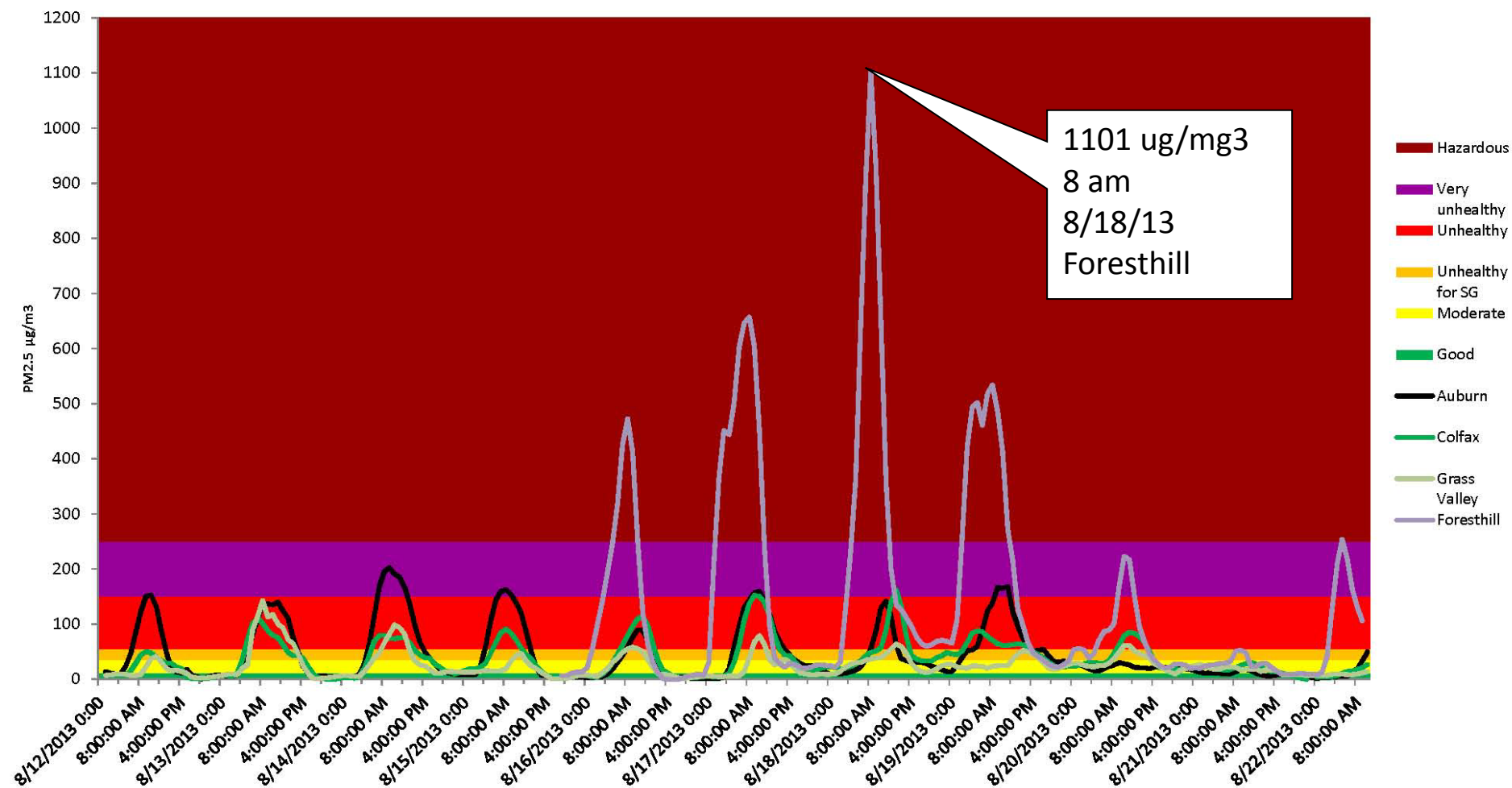




Particulate Matter (PM2.5) Measurements at Foresthill during Wildfire Incidents

last update: 8/22/2031 10:30

Foothill Area





Woody Biomass Wastes





Open Burning vs Renewable Energy

**Open Pile
Burn**



Cost to chip and transport
biomass to bioenergy facility **>** Value of biomass
for fuel

VS

**Renewable
Biomass
Energy**



Grind and Haul Biomass



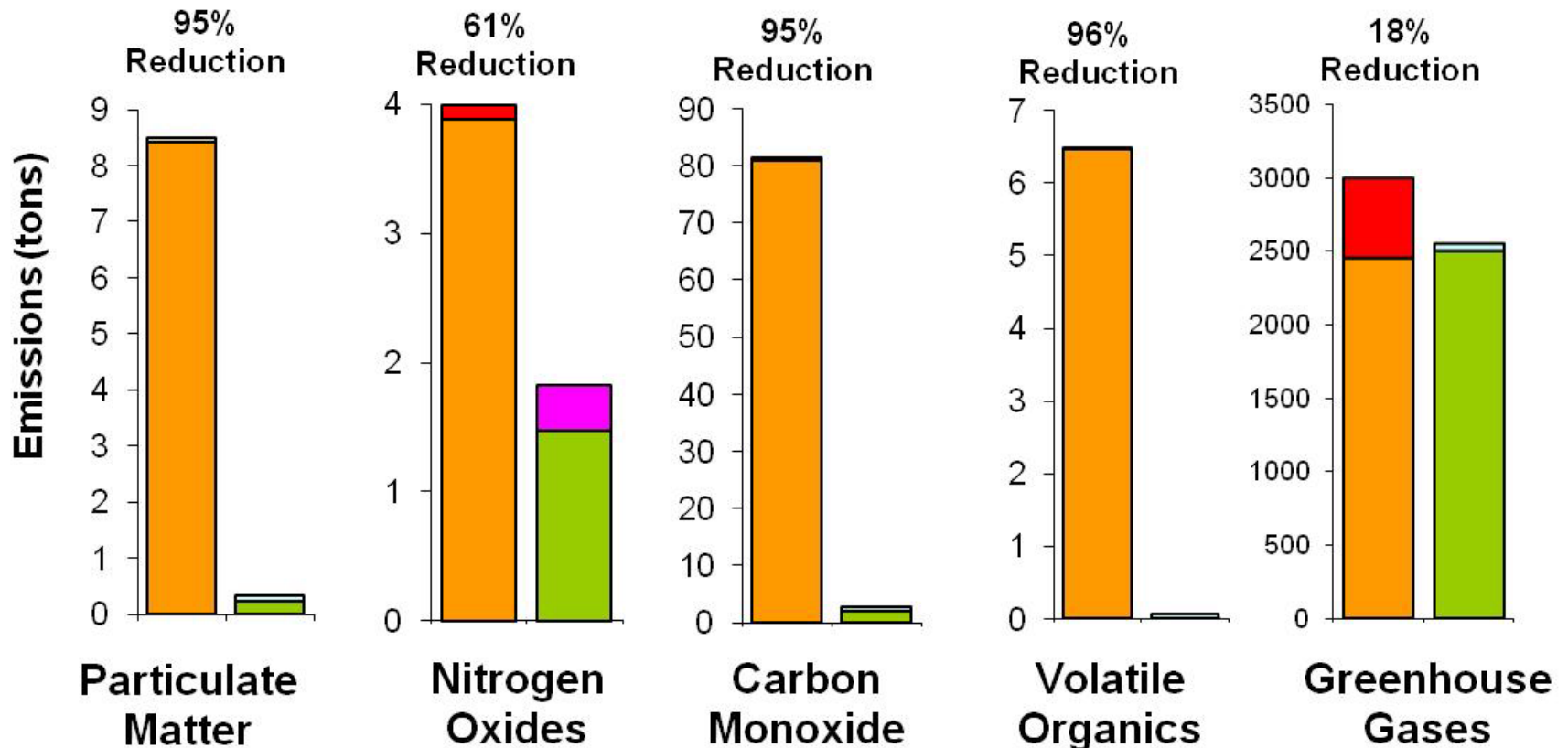
Controlled Energy Generation





Open Burning vs Biomass Energy

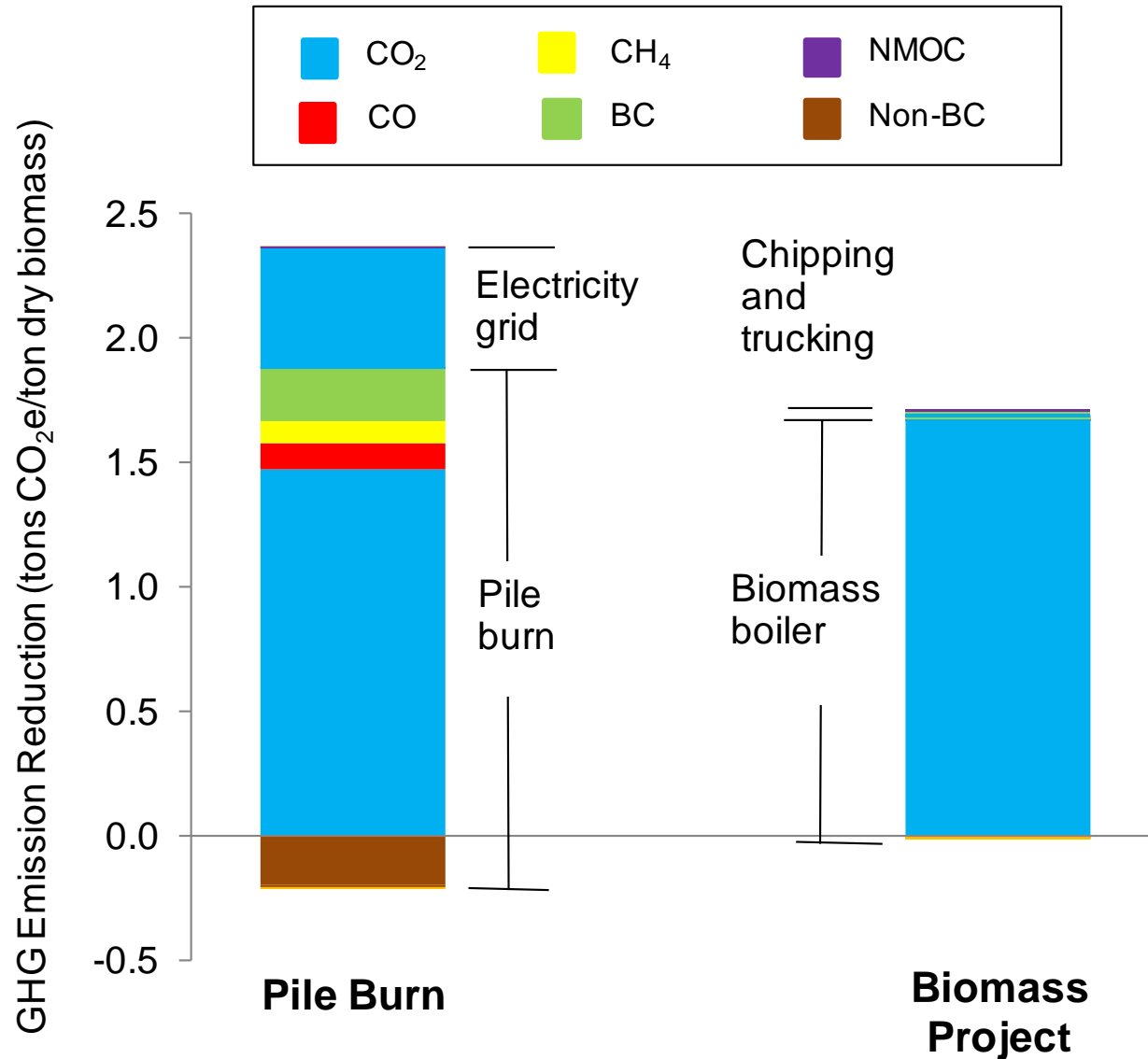
Criteria Air Pollutants





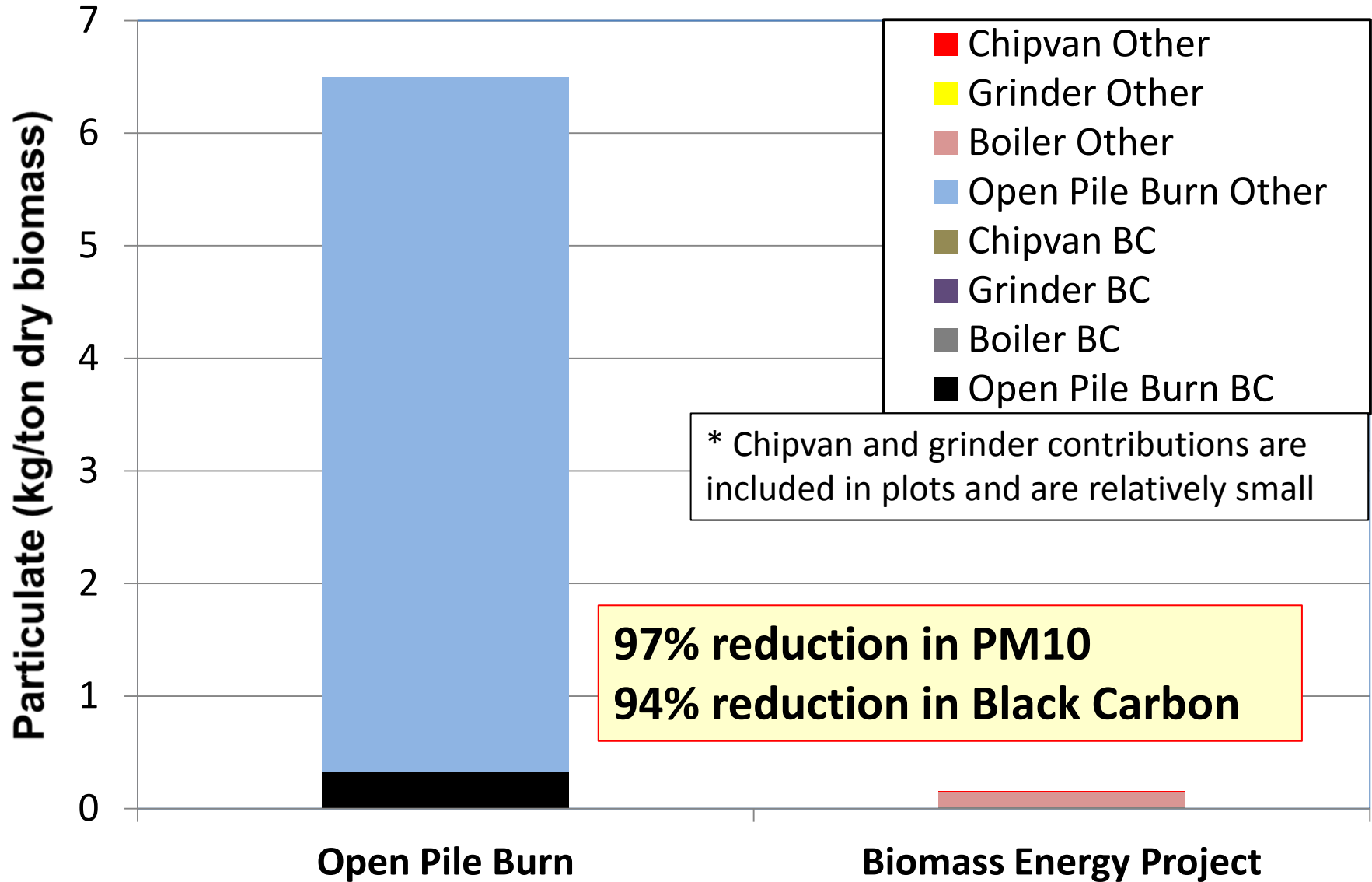
Open Burning vs Biomass Energy

Greenhouse Gases





Black Carbon



PRELIMINARY ESTIMATES